

Appl. No. 08/904,121
Amdt. Date March 16, 2004
Response to Office Action dated October 20, 2003

AMENDMENTS TO THE CLAIMS

1 (previously amended): A bariatric bed, comprising:
a frame adapted to support patients having weights in the range of 500 to 800 pounds;
said frame including an articulated mattress support for supporting a mattress, said support including at least first, second and third articulatable sections positioned to support a leg region, a seat region and a head region, respectively, of the mattress supported on said support;
a raise-and-lower mechanism for generally raising and lowering the entire mattress support relative to a floor-engaging portion of the frame;
an articulation mechanism for articulating the mattress support from a relatively horizontal, lying position to a seated position; and
controls for tilting the mattress support lengthwise.

2 (previously added): The bariatric bed as recited in claim 1, wherein said raise-and-lower mechanism comprises a head end torque arm and a leg end torque arm, each said torque arm being pivotally disposed upon said frame, said leg end torque arm being adapted to support said second articulatable section from a first pair of laterally diverse points, said first pair being substantially adjacent said first articulatable section, and said head end torque arm being adapted to support said second articulatable section from a second pair of laterally diverse points, said second pair being substantially adjacent said third articulatable section.

3 (previously added): The bariatric bed as recited in claim 2, wherein each said torque arm is independently actuatable.

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4 (previously added): The bariatric bed as recited in claim 3, wherein said raise-and-lower mechanism further comprises:

a leg end jack, said leg end jack being adapted to actuate said leg end torque arm for raising and lowering of the portion of said second articulatable section adjacent said first articulatable section; and

a head end jack, said head end jack being adapted to actuate said head end torque arm for raising and lowering of the portion of said second articulatable section adjacent said third articulatable section.

5 (currently amended): The bariatric bed as recited in claim 4, wherein said leg end jack is actuatable by a first jack motor mounted to the frame and said head end jack is actuatable by a second jack motor mounted to the frame.

6 (previously added): The bariatric bed as recited in claim 5, wherein each said jack motor is a linear actuator type motor.

7 (previously added): The bariatric bed as recited in claim 3, wherein said raise-and-lower mechanism is adapted to position said mattress support up to 10° Trendelenburg.

8 (previously added): The bariatric bed as recited in claim 3, wherein said raise-and-lower mechanism is adapted to position said mattress support in up to 12° reverse Trendelenburg.

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9 (previously added): The bariatric bed as recited in claim 3, wherein said mattress support comprises a radiolucent section, said radiolucent section being adapted to allow radiographic examination of a patient while positioned upon said mattress support.

10 (previously added): The bariatric bed as recited in claim 9, wherein said radiolucent section comprises a radiolucent window through said third articulatable section.

11 (currently amended): The bariatric bed as recited in claim 3-10, wherein said ~~radiolucent window comprises~~ mattress support comprises an X-ray cassette support structure ~~tray~~.

12 (currently amended): The bariatric bed as recited in claim 11, wherein said X-ray cassette support structure ~~tray~~ is adapted to permit insertion and removal of an X-ray cassette ~~film~~ without repositioning of the patient under radiographic examination.

13 (currently amended): The bariatric bed as recited in claim 11, wherein said X-ray cassette support structure ~~tray~~ comprises a mechanism adapted for positioning of an ~~X-ray film~~ within said X-ray cassette, said mechanism being independently operable from either side of said bariatric bed.

14 (previously added): The bariatric bed as recited in claim 3, wherein said frame further comprises an integral scale, said scale being adapted to determine the weight of a patient positioned upon said mattress support.

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15 (previously added): The bariatric bed as recited in claim 4, wherein said articulation mechanism comprises a head-up jack dependently interposed between said second articulatable section and said third articulatable section, said head-up jack being adapted to articulate said third section relative to said second section for raising and lowering of the head region of the mattress.

16 (previously added): The bariatric bed as recited in claim 15, wherein said articulation mechanism further comprises a leg-down jack dependently interposed between said second articulatable section and said first articulatable section, said leg-down jack being adapted to articulate said first section relative to said second section for lowering and raising of the leg region of the mattress.

17 (previously added): The bariatric bed as recited in claim 16, wherein said leg end jack, head end jack, head-up jack and leg-down jack are cooperatively adapted to position the mattress support as a cardiac chair.

18 (previously added): The bariatric bed as recited in claim 16, wherein said leg end jack, head end jack, head-up jack and leg-down jack are cooperatively adapted to articulate the mattress support into a position that facilitates patient ingress and egress over the leg region of the mattress.

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19 (currently amended): The bariatric bed as recited in claim 18, wherein said frame further comprises a foot board assembly adapted to be used as a step to support a patient entering or exiting the bed, said foot board assembly being adapted to articulate relative to said first section, from a resting position, when a force is applied thereto, but to increasingly resist said force with increasing degree of articulation.

20 (previously added): The bariatric bed as recited in claim 19, wherein said foot board assembly comprises a dampening member, said dampening member being adapted to prevent rapid returns of said foot board assembly to said resting position.

21 (previously added): The bariatric bed as recited in claim 3, said bariatric bed further comprising a plurality of laterally adjustable side rails, each said side rail being collapsible to a transport position within the side planes of said frame.

22 (currently amended): The bariatric bed as recited in claim 21, wherein at least one said side rail comprises an interiorly positioned, integral bed control, said bed control comprising an image rendering display and being adapted to effect articulation of said mattress support.

23 (new): A bariatric bed, comprising:
a frame adapted to support patients having weights in the range of 500 to 800 pounds;
said frame including an articulated mattress support for supporting a mattress, said support including at least first, second and third support sections positioned to support a leg region, a seat region and a head region, respectively, of the mattress supported on said support;

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a leg end torque arm being pivotally disposed upon said frame, said leg end torque arm being adapted to support said second support section from a first pair of laterally diverse points;

a head end torque arm being pivotally disposed upon said frame, said head end torque arm being adapted to support said second support section from a second pair of laterally diverse points;

wherein the leg end torque arm and the head end torque arm are independently actuatable to tilt said second support section with respect to the frame;

wherein the first and third support sections are pivotally joined to said second support section; and

an articulation mechanism operable to articulate the respective relations of the first, second, and third support sections of the mattress support from a relatively horizontal, lying position to a seated position.

24 (new): A bed having a frame supporting a patient support surface, wherein the bed comprises:

an articulation mechanism for articulating the patient support surface from a relatively horizontal, lying position to a seated position;

a foot board assembly connected to the patient support surface operable to be used as a step to support a patient entering or exiting the bed, said foot board assembly being adapted to articulate away from a default position when a force is applied thereto, but to increasingly resist said force with increasing degree of articulation.

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25 (new): The bed as recited in claim 24, wherein said foot board assembly comprises a dampening member, said dampening member being adapted to resist snapback of said foot board assembly to said default position.

26 (new): The bed as recited in claim 24, wherein said foot board assembly comprises a dampening member, said dampening member being adapted to resist articulation of the foot board assembly when used as a step.

27 (new): The bed as recited in claim 24, wherein said foot board assembly comprises a first hydraulic cylinder adapted to resist articulation of the foot board assembly when used as a step; a spring adapted to return the foot board assembly to its default position when weight is removed from said foot board assembly; and a second hydraulic cylinder adapted to resist snapback of the foot board assembly.

28 (new): The bed as recited in claim 24, further comprising a cushion affixed to the bottom of the foot board assembly, said cushion serving to protect persons who might inadvertently place their foot underneath the foot board assembly while a patient is entering or exiting the bed.

29 (new): The bed as recited in claim 24, further comprising a pivot mechanism to enable the foot board assembly to lie coplanar with the patient support surface.

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30 (new): The bed as recited in claim 24, further comprising a side rail assembly operable to pivot from a raised position to a lowered position and further operable to slide laterally from a retracted position to an extended position.